

REMARKS

Reconsideration and allowance of the above identified application are requested.

Information Disclosure Statement

The attached IDS includes documents cited in this response to the Office action dated October 29, 2004. A check that includes the fee for submitting the IDS after the first Office action is enclosed.

Claim Objections.

Claims 4-6 are cancelled, thus obviating objections based on informalities and improper dependent form.

Specification.

The paragraph that starts on page 2, line 35 is amended to clarify the claimed invention within the scope of the original application. The Applicant's invention claims ice creams made with an emulsified liquid shortening composition comprising dietary fiber gel. The dietary fiber gel of the invention is disclosed by Inglett (U.S. Patent, Number 5,766,622, dated June 16, 1998), which was incorporated by reference into the original as-filed application at page 2, line 36. Information included by reference is "as much a part of the application as filed . . . , and should be treated as part of the text of the application as filed." MPEP § 2163.07(h). Clearly, dietary fiber gel as disclosed by Inglett is part of the as-filed application.

Inglett teaches at Col. 1, lines 9-12, that it is well known that "[d]ietary fibers are generally considered to be the soluble and insoluble components of cell walls . . . [and] consist primarily of cellulose, hemicellulose," and so forth. In the process of the invention, Inglett at Col. 3, lines 24-32, explicitly teaches that "[f]ollowing at least the second stage of treatment . . . the solids are separated for the liquids and the recovered insolubles are carried forward to the next processing step, [wherein] the second stage separation is intended to isolate and recover the gel product of this invention," i.e., dietary fiber gel. The source of the dietary fiber is agricultural by-products such as grain seed brans, hulls, and so forth is noted by Inglett at Col. 3, lines 3-8.

Inglett implicitly teaches that dietary fiber gel is insoluble dietary fiber derived from the alkaline treatment of agricultural by-products. Inglett at Col. 3, line 33 to Col. 4, line 36 teaches

the first stage of treatment is “preferably in the range of about . . . pH 9-13. The gel products . . . contained in the insoluble fraction . . . from the first stage . . . are subjected to [a] second stage . . . [of] treatment . . . at alkali pHs, preferably in the range of 7-12. Following the second stage . . . solids are again separated from the liquids . . . [and] the recovered solids consist of cellular debris in the form of a hydrated gel. The gel may be dried.” One skilled in the art would know that solids separated from liquid after the second stage are implicitly insoluble dietary fiber. Clearly, because Inglett explicitly and implicitly teaches dietary fiber gel as the insoluble component of dietary fiber that can be recovered and formed into a gel, so does the as-filed application.

As to the physical form and characteristics of the dietary fiber gel, Inglett at Col. 5, lines 43-45, explicitly teaches that dietary fiber gel “may exist in either the hydrated form as gels or in the dehydrated form as flakes or powder.” At Col. 4, lines 30-32, the hydrated gel is described as “white or very light in color, [and] has little or no flavor, [and] a smooth texture.”

Inglett inherently teaches an amorphous dietary fiber gel because the gel exhibits a smooth morphology. For example, at Col. 4, line 63 to Col. 5, line 3, Inglett teaches that dietary fiber gel has “a smooth sheet- or film-like morphology” based on scanning electron photographs at magnifications of 500-1000X, and “[t]he smoothness of the original gels are restored after reconstitution of the dried products.” Typically, crystal structures are characterized by sharp edges that result in rough, jagged, and under scanning electron microscopic magnification a generally non-smooth morphology such that one skilled in the art would know that dietary fiber gel that has a smooth morphology would be inherently amorphous.

Thus, dietary fiber gel in the Applicant’s invention comprises non-particulate amorphous insoluble dietary fiber derived from the alkaline treatment of agricultural by-products. Although the specification has been amended so as to more reasonably convey the invention, and more specifically what dietary fiber gel is to one skilled in the art, the amendments to the specification are expressly, implicitly, or inherently supported by the Inglett patent, a part of the original as-filed application.

35 U.S.C. § 102(b) Claim Rejection.

The Applicant traverses the rejection of Claims 1-6 as anticipated under 35 U.S.C. § 102 (b) because the reference Baer, cited in the Examiner’s Office Action, teaches frozen desserts,

including ice cream, comprising a fat substitute comprising microcrystalline cellulose particle and a coating, such as a lipid coating. The Applicant's invention on the other hand discloses ice creams comprising an emulsified liquid shortening, a fat substitute, comprising non-coated amorphous insoluble dietary fiber, water, and a lipid wherein the lipid is the fat and oil component of the fat substitute.

There is nothing disclosed in Baer that anticipates the Applicant's invention as suggested by the Examiner. Anticipation depends on prior publication of the invention. 35 U.S.C. § 102(b). The establishment of anticipation requires that every element or limitation of the claimed invention can be found in a single prior publication. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The Applicant traverses the rejection because nothing in Baer teaches all the elements and limitations of the Applicant's claimed invention.

The Applicant's invention claims ice creams made with an emulsified liquid shortening composition comprising dietary fiber gel. The specification, as amended, discloses that the dietary fiber gel comprises non-coated amorphous insoluble dietary fiber derived from the alkaline treatment of agricultural by-products, such as seed brans, hulls, and so forth. Nothing in the cited references teaches shortening or fat substitute compositions comprising dietary fiber gel comprising non-coated amorphous insoluble dietary fiber derived from the alkaline treatment of agricultural by-products.

For example, Baer at Col. 3, lines 60-62, teaches fat substitutes comprising a particulate microreticulated microcrystalline cellulose, a source of dietary fiber. The natural sources of the cellulose as pointed out by Baer at Col. 4, lines 50-53, are "tightly packed crystalline regions . . . interspersed with . . . amorphous areas [of fiber], called par-crystalline regions." Further, Baer at Col. 4, lines 31-36, states that "[i]t is important that the . . . cellulose . . . be prepared from highly crystalline microcrystalline celluloses . . . conventionally prepared from wood pulp by acid hydrolysis of cellulose fiber." At Col. 4, line 53-57, Baer specifically notes that the importance of acid hydrolysis is "to attack the para-crystalline [or amorphous] regions." One skilled in the art would know that a particulate microcrystalline cellulose derived from the acid hydrolysis of wood pulp that specifically attacks amorphous cellulose differs from amorphous non-particulate insoluble dietary fiber derived from the alkaline treatment of agricultural by-products that substantially disrupts cellular structure. Clearly, Baer teaches fat substitutes that

comprise particulate microcrystalline cellulose derived from the acid treatment of wood products, and not non-particulate amorphous insoluble dietary fiber.

Further, Baer at Cols. 5-10 describes the production of particulates of microcrystalline cellulose and water dispersion formed by complex high shear processing. The processing typically includes multiple stages at super high pressure to create super high shear by pressure drops as high as 12,000 psi. Unfortunately, the microcrystalline cellulose dispersions so produced have very strong undesirable taste and texture and can not be used directly in the formulation of a fat substitute. As Baer teaches at Col. 10, lines 31-37, only "after treatment with an astringency reducing agent [can microcrystalline cellulose dispersions] be used as a fat replacer." Continuing at Col. 10, lines 50-52, Baer teaches "coating the surface of the microreticulated microcrystalline cellulose particle with an astringency control agent, [wherein a]n effective treatment is post-homogenization gum coating." Although "the most effective gums are xanthan gum and carrageenan," as taught by Baer at Col. 10, lines 61-62, Baer also teaches at Col. 12, lines 43-53, that the "microcrystalline cellulose particles may also be coated with an agent such as edible fatty emulsifier [including suitable lipids]." Thus, Baer teaches fat substitutes that are essentially two components: a particle containing microcrystalline cellulose and a particle coating. The coating, which can be a lipid, is an essential component of the fat substitute because the coating controls microcrystalline cellulose astringency. In fact, Baer at Col. 12, line 61 uses the term "coating lipid." On the other hand, the current invention does not require coating the dietary fiber gel because dietary fiber gel has little or no flavor and thus lacks astringency. Clearly, Baer teaches a fat substitute comprising at least two components, a microcrystalline cellulose particle and a coating, such as a coating lipid, but does not teach a fat substitute comprising a non-coated amorphous insoluble dietary fiber gel, water, and lipid, wherein the lipid is the fat and oil component of the fat substitute.

35 U.S.C. § 103 Claim Rejection of Claims 4-6.

Claims 4-6 are cancelled, thus obviating rejection of Claims 4-6 based on obviousness.

Nonstatutory Double Patenting Rejection.

The Applicant traverses the provisional rejection of Claims 1-3 as obviousness-type double patenting based on a judicially created doctrine because the reference, Application No.

10/689,267 teaches dressings comprising emulsified liquid shortening. The Applicant's invention on the other hand teaches the patentably distinct species related to ice creams, ice milk, and frozen yogurts comprising emulsified liquid shortening.

The References Do Not Teach the Claimed Invention

There is nothing disclosed in the copending Application No. 10/689,267 for dressings that teaches the modification of the references suggested by the Examiner. Obviousness, including obviousness-type double patenting, depends on the differences between a claimed invention and the prior art. *See generally, 35 U.S.C. § 103(a)*. The establishment of obviousness requires that the prior art must teach or suggest all the limitations of the claimed invention. *See also, In re Royka*, 490 F.2d 981, 984-85 (CCPA 1974). The Applicant traverses the rejection because nothing in Application No. 10/689,267 teaches all the elements and limitations of the Applicant's claimed invention.

The current application, Application No. 10/689,196, teaches ice creams, ice milks, and frozen yogurts comprising emulsified liquid shortening that contains dietary fiber gel such that the solids within the dietary fiber gel represent 0.1 percent to 0.45 percent, 0.2 percent to 2.5 percent, and 0.1 percent to 0.5 percent, respectively, of the overall ice cream, ice milk, and frozen yogurt formulation. The cited copending application, Application No. 10/689,267, teaches dressings, including dressing mixes, comprising emulsified liquid shortening that contains dietary fiber gel such that the solids within the dietary fiber gel represent 0.1 percent to 3.0 percent of the overall dressing formulation. The inventions are patentably distinct because dressings are oil and vinegar based thick liquids while ice creams, ice milks, and frozen yogurts are cream and milk based frozen foods.

For example, a dictionary definition of ice cream is "a frozen dessert . . . made with cream and egg yokes." A dictionary definition of ice milk is "frozen food . . . made with skim milk," wherein a dictionary definition of skim milk is "milk with most or all of its fat content removed." A dictionary definition of yogurt is "milk fermented by bacteria" such that frozen yogurt would be a frozen food product derived from "milk fermented by bacteria." Thus, ice cream, ice milks, and frozen yogurt is a species of dairy based frozen foods that include cream and milk. On the other hand, a dictionary definition of dressing is "a sauce . . . with an oil and vinegar or mayonnaise base," wherein a dictionary definition of sauce is "a thick liquid that is

served with food to add extra flavor, and a dictionary definition of mayonnaise is “a sauce . . . made from egg yolks, vegetable oil, vinegar, lemon juice, and spices.” Thus, dressing is a species of thick liquid type foods that include oil, vinegar, and optionally egg yolk. One skilled in the art would know that thick liquid type foods that comprise vinegar and oil are substantially different from frozen foods that comprise cream and milk. Clearly, ice creams, ice milks, and frozen yogurts are as a group patentably distinct from dressings because dressings are oil and vinegar based thick liquid foods and not cream and milk based frozen foods.

There is no support in cited reference that ice creams, ice milks, and frozen yogurts are patentably indistinct from dressings. For example, Baer, at Col. 14, lines 10-14, refers to ice cream while discussing frozen desserts. Separately, at Col. 15, lines 38-41, Baer explicitly includes “fat-free mayonnaise, salad dressing and French dressing, and imitations thereof including condiments” as part of a food classification relating to dressings. The list does not explicitly include frozen desserts such that Baer implicitly teaches that dressings are inherently a different and patentably distinct species from frozen desserts such as ice creams, ice milks, and frozen yogurts. Further, Baer does not discuss any relationship between frozen desserts and dressings, such that one skilled in the art would know that Baer is describing two separate and distinct species of food products. Although Baer discusses dressings starting at Col. 14, line 56, this discussion is noticeably separate from Baer’s discussion of frozen dessert formulations at Col. 14, lines 5-55, such that one skilled in the art would know frozen desserts formulations are completely separate and distinct from the formulations for dressings. In addition, nothing in copending the application, No. 10/689,267 for dressings, discloses, describes, or claims dressings and ice creams, ice milks, and frozen yogurts together as related food groups and patentably indistinct. Finally, the Examiner alleged that the inventions are not patentably distinct; however, the Examiner offered no specific evidence of this alleged fact.

Although the claimed invention in co-pending application, Application No. 10/689,267, for dressings has elements that are similar to the elements in the current application, Application No. 10/689,196 for ice creams, ice milks, and frozen yogurts, all the limitations or elements of the current inventions are not taught because the ranges of the similar elements are not identical, and because the subject matter as giving in the preamble of the claims are directed to patentably distinct inventions. Clearly, Application No. 10/689,267 teaches dressings having a certain

range of dietary fiber gel, and does not teach ice creams, ice milks, and frozen yogurts as in Application No. 10/689,196 having substantially different ranges of dietary fiber gel.

The References Lack Any Suggestion to Combine

There is nothing disclosed in copending Application No. 10/689,267 for dressings that teaches the modification of the references suggested by the Examiner. Obviousness requires that the suggestion to make the claimed invention must found in the prior art. *See generally, In re Vaeck*, 947 F.2d 488, 493 (Fed. Cir. 1991). Such a suggestion is lacking in the cited references. Even if the references fully taught the Applicant's invention, the Applicant traverses the rejection because nothing in copending Application No. 10/689,267 affirmatively suggests making the cited combination.

Copending Application No. 10/689,267 teaches dressings, including dressing mixes, comprising emulsified liquid shortening that contains dietary fiber gel. The Applicant's current invention, Application No. 10/689,196, on the other hand teaches ice creams, ice milks, and frozen yogurts comprising an emulsified liquid shortening comprising dietary fiber gel. Nothing in Application No. 10/689,267 teaches or suggests ice creams, ice milks, and frozen yogurts comprising emulsified liquid shortening that contains dietary fiber gel.

More specifically, copending Application No. 10/689,267 teaches the food product specie of dressings that comprise emulsified liquid shortening, a fat substitute that comprises dietary fiber gel, water, and lipid. Application No. 10/689,267 does not teach or suggest any other food product species formulations that use an emulsified liquid shortening comprising dietary fiber gel, water, and lipid.

Combining the References Lacks a Reasonable Expectation of Success

There is nothing disclosed in copending Application No. 10/689,267 in view of McGinley that teaches a reasonable expectation of success in combining the references as suggested by the Examiner. Obviousness exists when the references provide a reasonable expectation of success for the proposed combination. *See generally, In re Merck & Co., Inc.*, 800 F.2d 1091, 1097-98 (Fed. Cir. 1986). Whether the combination is obvious or unobvious requires consideration of all the evidence and resultant findings. *See also, In re Rinehart*, 531 F.2d 1048, 1052 (CCPA 1976). Such an expectation of success is lacking in the cited reference.

Even if the references fully taught the Applicants invention, the Applicant traverses the rejection because nothing in copending Application No. 10/689,267 for dressings leads to an expectation of success for the identified combination.

For example, based on common dictionary definitions of dressing, and ice cream, ice milk, and frozen yogurt, copending application, Application No. 10/689,267, teaches dressings that are oil and vinegar based thick liquids, while the Applicant's current application 10/689,196, teaches ice creams, ice milks, and frozen yogurts that are cream and milk based frozen foods. One skilled in the art would know that thick liquids based on oil and vinegar such as dressings are not frozen foods based on cream and milk, such as ice creams, ice milks, and frozen yogurts. Nothing in the cited reference teaches any expectation that a component such as emulsified liquid shortening that is used to make thick liquids based on oil and vinegar, such as dressings, can also be use to make frozen foods based on cream and milk, such as ice creams, ice milks, and frozen yogurts. For example, there is no explicit mention of ice creams, ice milks, and frozen yogurts in Application No. 10/689,267. Clearly, Application No. 10/689,267 does not teach any expectation that emulsified liquid shortening used for dressings can be used for ice creams, ice milks, and frozen yogurts. Nothing in Application No. 10/689,267 for dressings provides any expectation that a separate and distinct food product species that includes ice creams, ice milks, and frozen yogurts, can be successfully formulated with an emulsified liquid shortening comprising dietary fiber gel, water, and lipid.

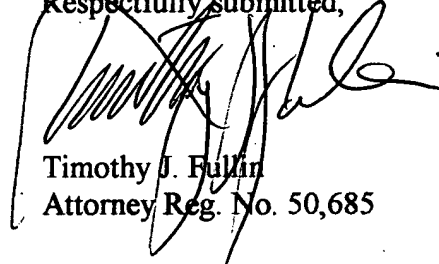
Applicant has amended the specification to clarify the foregoing distinctions. Although the specification has been amended so as to more reasonably convey the invention, and more specifically dietary fiber gel, to one skilled in the art, the amendments to the specification are expressly, implicitly, or inherently supported by the Inglett patent, a part of the original as-filed application. In view of the amendment to the specification, and above arguments, Applicant requests that the rejection of Claims 1-6 as being anticipated under 35 U.S.C. § 102 (b) be withdrawn. Further, in view of the amendment and above arguments, Applicant requests that the provisional rejection of Claims 1-3 under nonstatutory double patenting based on a judicially created doctrine be withdrawn.

The fat substitutes as in the cited reference, Baer, are functionally different from the Applicant's invention. In the cited reference, fat substitution is through the use of a coating to

reduce or eliminate adverse organoleptic effects such as mouth-coating or astringency sensations of microcrystalline cellulose. In the Applicant's invention, there is no coating because dietary fiber gel has little or no flavor, and has a smooth texture. Applicant's use of a non-coated fiber derived fat substitute is not taught in the mentioned references.

Applicant believes that the amended patent application is now in condition for allowance. Accordingly, the Applicant respectfully requests that a Notice of Allowance be issued in this case. The Examiner is invited to contact the undersigned by telephone or facsimile if the Examiner believes this would advance the prosecution of the matter.

Respectfully submitted,



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